

REMARKS

This amendment is responsive to the Office Action dated July 26, 2005. In this amendment, Applicant has added new claim 25. Claims 1 – 25 are pending upon entry of this amendment.

Claim Rejection Under U.S.C. § 102

In the Office Action, the Examiner rejected claims 1-3, 6, 7, 12, 14-17, 20 and 21 under 35 U.S.C. 102(e) as being anticipated by Briggs (US 6,567,050). In addition, the Examiner rejected claims 1-5, 7, 8 and 12-19 under 35 U.S.C. 102(b) as being anticipated by Novikoff (US 4,326,198). Applicant respectfully traverses the rejection. The applied references fail to disclose each and every feature of the claimed invention and provide no teaching that would have suggested the desirability of modification to include such features.

Applicant's claim 1 is directed to a single antenna. Claim 1 requires the antenna have a plurality of conductive loops to produce an electromagnetic field for RFID communication. Moreover, claim 1 requires that the loops of that antenna are spaced apart at least a distance D that is selected based on a dimension of the RFID tags with which the antenna communicates.

With respect to claim 1, the Examiner states that Briggs discloses "a [sic] RFID system having a plurality of conductive loops ([antennas] 10a, 10b)." Thus, the Examiner has incorrectly substituted a the term "RFID system having a plurality of conductive antennas" for Applicant's claim 1 language that requires a single "antenna" having a plurality of conductive loops. None of the reference teach or suggest an antenna having a plurality of loops, where the loops of that antenna are spaced at least a distance D that is selected based on a dimension of the RFID tags, as recited by Applicant's claims 1 and 12.

In contrast, Briggs teaches the use of multiple double loop antennas (10a, 10b) as described in column 5 lines 12-16, figures 3A – 3C, as quoted herein (emphasis added).

Referring to FIGS. 3A, 3B, and 3C, a reader drives two feed points 17c and 17d respectively within two double loop antennas 10a and 10b, respectively forming loops 19a and 19b, and 19c and 19d. The two double loops 10a and 10b lie in planes in parallel to each other, between which is the path 24 along which the tag 26 moves.

Thus, Briggs clearly describes separate antennas separated by a path 24 through with the tag moves. Briggs does not describe a single antenna comprising a plurality of conductive loops as required by Applicant's claims 1 and 12. Furthermore, Briggs makes no reference whatsoever to selecting a distance between the conductive loops of a single antenna based upon a dimension of the RFID tags with which the antenna communicates, as required by Applicant's claims 1 and 12.

Moreover, Briggs clearly describes multiple antennas spaced apart a distance that exceeds a maximum dimension of the RFID tag and not a single antenna with conductive loops separated by a distance that exceeds a maximum dimension of the RFID tags as required by Applicant's claims 2, 3, 16 and 17.

Furthermore, Novikoff, as with Briggs, fails to describe the use of a single antenna comprising a plurality of conductive loops as required by Applicant's claims 1 and 12. In contrast, Novikoff teaches the use of multiple antennas as described in column 3 lines 28-34, figures 4 - 6, as quoted herein (emphasis added).

FIG. 4 is a perspective view similar to FIG. 1, but showing a presently preferred arrangement of antennas in the article detection system;

FIG. 5 is an exploded perspective view showing details of the antenna arrangement of FIG. 4; and

FIG. 6 is a schematic diagram showing a modified arrangement for energizing the antennas of FIG. 5.

Therefore, Novikoff clearly teaches the use of multiple antennas and not a single antenna comprising a plurality of conductive loops as required by Applicant's claims 1 and 12.

Furthermore, Novikoff makes no reference whatsoever to selecting a distance between the conductive loops of a single antenna based upon a dimension of the RFID tags with which the antenna communicates, as required by Applicant's claims 1 and 12. Moreover, Novikoff clearly describes multiple antennas spaced apart a distance that exceeds a maximum dimension of the RFID tag and not a single antenna with conductive loops separated by a distance that exceeds a maximum dimension of the RFID tags, as required by Applicant's claims 2, 3, 16 and 17.

Claim Rejection Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 9, 10, 11 and 13 under 35 U.S.C. 103(a) as being unpatentable over Briggs (US 6,567,050) in view of Roesner (US 6,147,655).

Applicant respectfully traverses the rejection. The applied references fail to disclose or suggest the inventions defined by Applicant's claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

In regard to claims 9, 10, and 11 the Examiner proposes to modify the antennas (10a, 10b) of Briggs with the printed circuit board antenna in Roesner. Applicant respectfully submits that the Examiner has misinterpreted the scope and content of Briggs. As described above, Briggs describes the use of two antennas separated by a distance for reading RFID tags in between the two antennas. Modifying Briggs to fabricate both antennas on a single printed circuit board, as disclosed by Roesner, would undermine the functionality of Briggs. Namely, in the two antennas (10a, 10b) of Briggs were fabricated on a single printed circuit board, the antennas could no longer be positioned in parallel and separated by a path for reading RFID tags moving between the two antennas.

Claim 13 is in condition for allowance for at least the reasons stated previously in this Amendment.

For at least these reasons, the Examiner has failed to establish a prima facie case for non-patentability of Applicant's claims 9, 10, 11 and 13 under U.S.C. § 103(a). Withdrawal of these rejections is requested.

New Claims:

Applicant has added claim 25 to the pending application, stating "[t]he antenna of claim 1, wherein the conductive loops are substantially coplanar and the distance D represents the distance between the conductive loops within a plane". The applied references fail to disclose or suggest the inventions defined by Applicant's new claim 25, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed inventions. As one example, the references fail to disclose or suggest a single antenna having multiple conductive loops where the multiple loops are substantially coplanar and separated by a distance D within that plane, where D that is selected based on a dimension of the RFID tags as recited by claim 25. No new matter has been added by the new claim.

Allowable Subject Matter

In the Office Action, the Examiner objected to claims 22-24 as including subject matter that would be allowable if rewritten in independent form. Applicant agrees with the Examiner. However, Applicant has elected not to rewrite claims 22-24 in independent form at this time.

CONCLUSION

All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney to discuss this application.

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By:

October 26, 2005
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